RAW SEQUENCE LISTING   DATE: 09/09/2004
PATENT APPLICATION: **US/09/445,788B**   TIME: 10:54:48

Input Set : **A:\53922.ST25.txt**
Output Set: **N:\CRF4\09092004\I445788B.raw**

```
 3 <110> APPLICANT: Cantab Pharmaceuticals Research Limited
 4       Baldwin, Thomas J
 5       Borriello, Peter S
 6       Palmer, Helen M
 8 <120> TITLE OF INVENTION: Live Attenuated Vaccines
10 <130> FILE REFERENCE: 5673-53922-01
12 <140> CURRENT APPLICATION NUMBER: 09/445,788B
13 <141> CURRENT FILING DATE: 2000-01-06
15 <150> PRIOR APPLICATION NUMBER: PCT/GB98/01683
16 <151> PRIOR FILING DATE: 1998-06-09
18 <150> PRIOR APPLICATION NUMBER: GB 9711964.8
19 <151> PRIOR FILING DATE: 1997-06-09
21 <160> NUMBER OF SEQ ID NOS: 20
23 <170> SOFTWARE: PatentIn version 3.3
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 31
27 <212> TYPE: DNA
28 <213> ORGANISM: Artificial sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: primer
33 <400> SEQUENCE: 1
34 ggaattcgay wscgaygayr tbcgbcayat g                      31
37 <210> SEQ ID NO: 2
38 <211> LENGTH: 31
39 <212> TYPE: DNA
40 <213> ORGANISM: Artificial sequence
42 <220> FEATURE:
43 <223> OTHER INFORMATION: primer
45 <400> SEQUENCE: 2
46 ggaattcrtc vggratrtgr ttcatrtcca t                      31
49 <210> SEQ ID NO: 3
50 <211> LENGTH: 27
51 <212> TYPE: DNA
52 <213> ORGANISM: Artificial sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: primer
57 <400> SEQUENCE: 3
58 gcagatgccc gaagcttttt atagcgg                            27
61 <210> SEQ ID NO: 4
62 <211> LENGTH: 36
63 <212> TYPE: DNA
64 <213> ORGANISM: Artificial sequence
66 <220> FEATURE:
```

ENTERED

RAW SEQUENCE LISTING   DATE: 09/09/2004
PATENT APPLICATION: US/09/445,788B   TIME: 10:54:48

Input Set : **A:\53922.ST25.txt**
Output Set: **N:\CRF4\09092004\I445788B.raw**

```
67 <223> OTHER INFORMATION: primer
69 <400> SEQUENCE: 4
70 gagctcggta ccgtgcagcg tgtccagatc tgcaag                    36
73 <210> SEQ ID NO: 5
74 <211> LENGTH: 24
75 <212> TYPE: DNA
76 <213> ORGANISM: Artificial sequence
78 <220> FEATURE:
79 <223> OTHER INFORMATION: primer
81 <400> SEQUENCE: 5
82 cataaaggga tcctggttcg ccag                                 24
85 <210> SEQ ID NO: 6
86 <211> LENGTH: 37.
87 <212> TYPE: DNA
88 <213> ORGANISM: Artificial sequence
90 <220> FEATURE:
91 <223> OTHER INFORMATION: primer
93 <400> SEQUENCE: 6
94 ggtaccgagc tccaaatgaa ggcagatctc gtcgccc                   37
97 <210> SEQ ID NO: 7
98 <211> LENGTH: 27
99 <212> TYPE: DNA
100 <213> ORGANISM: Artificial sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: primer
105 <400> SEQUENCE: 7
106 acaatgaaag tagaattcgt cggctgg                             27
109 <210> SEQ ID NO: 8
110 <211> LENGTH: 27
111 <212> TYPE: DNA
112 <213> ORGANISM: Artificial sequence
114 <220> FEATURE:
115 <223> OTHER INFORMATION: primer
117 <400> SEQUENCE: 8
118 gaabgcsgwg atgaattcgc cgcccat                             27
121 <210> SEQ ID NO: 9
122 <211> LENGTH: 19
123 <212> TYPE: DNA
124 <213> ORGANISM: Artificial sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: primer
129 <400> SEQUENCE: 9
130 ccctgctcac gtcgaccag                                      19
133 <210> SEQ ID NO: 10
134 <211> LENGTH: 19
135 <212> TYPE: DNA
136 <213> ORGANISM: Artificial sequence
138 <220> FEATURE:
139 <223> OTHER INFORMATION: primer
```

RAW SEQUENCE LISTING   DATE: 09/09/2004
PATENT APPLICATION: US/09/445,788B   TIME: 10:54:48

Input Set : A:\53922.ST25.txt
Output Set: N:\CRF4\09092004\I445788B.raw

```
141 <400> SEQUENCE: 10
142 acgcggtcga cgctgcacg                                          19
145 <210> SEQ ID NO: 11
146 <211> LENGTH: 24
147 <212> TYPE: DNA
148 <213> ORGANISM: Artificial sequence
150 <220> FEATURE:
151 <223> OTHER INFORMATION: primer
153 <400> SEQUENCE: 11
154 aatacgcaat tggatcctgc ttgc                                    24
157 <210> SEQ ID NO: 12
158 <211> LENGTH: 25
159 <212> TYPE: DNA
160 <213> ORGANISM: Artificial sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: primer
165 <400> SEQUENCE: 12
166 gatattgaat catatggaaa aattc                                   25
169 <210> SEQ ID NO: 13
170 <211> LENGTH: 27
171 <212> TYPE: DNA
172 <213> ORGANISM: Artificial sequence
174 <220> FEATURE:
175 <223> OTHER INFORMATION: primer
177 <400> SEQUENCE: 13
178 gtgattttgg ataagctttg caattcc                                 27
181 <210> SEQ ID NO: 14
182 <211> LENGTH: 24
183 <212> TYPE: DNA
184 <213> ORGANISM: Artificial sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: primer
189 <400> SEQUENCE: 14
190 ccagcgccat gaagcttcca tcat                                    24
193 <210> SEQ ID NO: 15
194 <211> LENGTH: 24
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: primer
201 <400> SEQUENCE: 15
202 gacaggatcc aatggtgcaa aacc                                    24
205 <210> SEQ ID NO: 16
206 <211> LENGTH: 24
207 <212> TYPE: DNA
208 <213> ORGANISM: Artificial sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: primer
213 <400> SEQUENCE: 16
```

RAW SEQUENCE LISTING   DATE: 09/09/2004
PATENT APPLICATION: US/09/445,788B   TIME: 10:54:48

Input Set : A:\53922.ST25.txt
Output Set: N:\CRF4\09092004\I445788B.raw

```
214 aatcatggtc atatgtgttt cctg                                    24
217 <210> SEQ ID NO: 17
218 <211> LENGTH: 23
219 <212> TYPE: DNA
220 <213> ORGANISM: Artificial sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: primer
225 <400> SEQUENCE: 17
226 cggaattcgg tctgaagcgg atg                                     23
229 <210> SEQ ID NO: 18
230 <211> LENGTH: 24
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial sequence
234 <220> FEATURE:
235 <223> OTHER INFORMATION: primer
237 <400> SEQUENCE: 18
238 cgcagcagga attcccgttt atcg                                    24
241 <210> SEQ ID NO: 19
242 <211> LENGTH: 54
243 <212> TYPE: DNA
244 <213> ORGANISM: Artificial sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: primer
249 <400> SEQUENCE: 19
250 gggcccgggc tgcagccgtc tgaaatgcat ttcagacggc tgcagcccgg gccc    54
253 <210> SEQ ID NO: 20
254 <211> LENGTH: 25
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: primer
261 <400> SEQUENCE: 20
262 cataaaggga tccgtgttcg ccagc                                   25
```

VERIFICATION SUMMARY   DATE: 09/09/2004
PATENT APPLICATION: **US/09/445,788B**   TIME: 10:54:49

Input Set : **A:\53922.ST25.txt**
Output Set: **N:\CRF4\09092004\I445788B.raw**